

STATEMENT OF BASIS

Mannington Mills, Inc. dba Mannington Wood Floors
Epes, Sumter County, Alabama
Facility/Permit No. 412-0011

This draft initial Title V Major Source Operating Permit (MSOP) is issued under the provisions of ADEM Admin. Code r. 335-3-16. The above named applicant has requested authorization to perform the work or operate the facility shown on the application and drawings, plans, and other documents attached hereto or on file with the Air Division of the Alabama Department of Environmental Management, in accordance with the terms and conditions of this permit.

Mannington Mills, Inc. dba Mannington Wood Floors (MMI) is an existing facility that manufactures hardwood panels for engineered wood flooring. MMI operates the following significant emission units: two 28.2 MMBtu/hr wood-fired boilers with a common stack to a dry electrostatic precipitator (Emission Unit Nos. 001 and 002); two veneer dryers (Emission Unit Nos. 003 and 004); one hardwood panel pressing line (Emission Unit No. 005); and a finishing line which includes a hardwood panel reference saw, trim saw, core saw, and band saw with a wood waste transfer baghouse to convey waste to the fuel house (Emission Unit No. 006). Other insignificant activities include four log soaking/steaming vats, a veneer lathe, two composers, and two 5,300-gallon glue storage tanks.

Applicability: Federal Regulations

Title V

MMI became a major source under Title V regulations on June 9, 2006, when the hardwood panel pressing line was first issued authorization to operate. The potential emissions for carbon monoxide (CO) exceeds the 100 TPY major source threshold. The facility is also a major source of hazardous air pollutants (HAP) since the facility-wide potential emissions of combined HAP

exceed 25 TPY and the facility-wide potential emissions of a single HAP (Vinyl Acetate) exceed 10 TPY.

Prevention of Significant Deterioration (PSD)

This facility is located in Sumter County, which is an attainment area for all criteria pollutants, and is considered a minor source for PSD. The facility operations are not one of the listed 28 major source categories; therefore, the major source threshold of concern is 250 TPY. The potential emissions of criteria pollutants are less than the PSD major source threshold. MMI is not located within 100 km of any PSD Class I Area.

New Source Performance Standard (NSPS)

Both of the 28.2 MMBtu/hr Hurst wood-fired boilers are subject to the Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units (40 CFR 60, Subpart D_c), which requires that records of daily or monthly fuel usage be kept in a permanent form suitable for inspection and be maintained on-site for a period of at least two (2) years from the date of generation. There are no emission standards under this subpart for wood waste boilers with less than 30 MMBtu/hr of heat input. The two 5,300-gallon glue storage tanks do not meet the minimum applicable size (19, 813 gallon capacity) of Standards of Performance for Volatile Organic Liquid Storage Vessels for which Construction, Reconstruction, or Modification Commenced after July 23, 1984, Subpart K_b.

Maximum Achievable Control Technology (MACT)

ADEM Admin. Code r. 335-3-11-.06(107)/40 CFR Part 63, DDDDD

National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial,

Commercial, and Institutional Boilers and Process Heaters

(Boiler MACT)

Since MMI is a major source of HAP, both boilers are subject to the Boiler MACT. Boiler Nos. 1 & 2 (Emission Unit Nos. 001 & 002) were installed before the June 4, 2010, applicability date and are classified as existing stoker units designed to burn wet biomass/bio-based solids. Both boilers are subject to a one-time energy assessment and initial tune-ups in accordance with 40 CFR §63.7500(a) and Table 3, prior to the January 31, 2016 compliance date. The energy assessment was completed on September 2, 2015, and initial tune-ups were completed on January 4, 2016. The latest tune-ups were completed on February 7, 2017.

Both units have applicable emission limits listed in Table 2 of the Subpart. Due to the common stack for both boilers, the emission limits are applicable to the stack exhaust and not to each unit. CO must not exceed 1500 ppm by volume on a dry basis corrected to 3 percent oxygen. Particulate matter (PM) must not exceed 0.037 pounds per MMBtu of heat input. Hydrogen Chloride (HCl) must not exceed 0.022 pounds per MMBtu of heat input. Mercury (Hg) must not exceed 5.7E-6 pounds per MMBtu of heat input. Compliance testing was conducted on February 10, 2016, and February 8, 2017. Test results for both boilers indicate CO, PM, HCl, and Hg were all below the emission standards set forth by 40 CFR Part 63, Subpart DDDDD.

Both units are required to establish operating limits based on performance stack testing in accordance with Table 4 of Boiler MACT. Operating limits are established for the individual performance of each boiler. MMI has agreed to this approach regarding emission limits and operating limits.

ADEM Admin. Code r. 335-3-11-.06(81)/40 CFR Part 63, Subpart DDDD

National Emission Standards for Hazardous Air Pollutants for

Plywood and Composite Wood Products

(“PCWP MACT”)

Since MMI is a major source of HAP and meets the definition of a PCWP manufacturing facility, it is subject to the PCWP MACT. Affected units at MMI include the hardwood veneer dryers, hardwood panel press, log steaming vats, green end operations, on-site storage and preparation of raw materials, and finishing operations (i.e. sawing and sanding). Under this MACT, there are no control requirements, operating limits, or work practice standards for any of the above units except the hardwood veneer dryers. MMI was required to comply with the standards for the hardwood veneers dryer upon initial startup of the hardwood panel pressing line (June 9, 2006). The work practice requirement for the hardwood veneer dryers is to process less than 30 volume percent softwood species on an annual basis.

Applicability: State Regulations

Particulate Matter

Both of the wood waste boilers are subject to the State particulate emission standard of 0.17 gr/dscf adjusted to 50% excess air for gas and wood waste burning equipment, in accordance with ADEM Admin. Code r. 335-3-4-.08(2)(a). Although these units burn wood waste only, they are considered gas burners because they use heat to evolve gases from the bark, which are burned further in a separate chamber in the boilers. Since both boilers share a common exit stack, this limit applies to this stack. A stack test was performed on the boilers common stack on

February 8, 2017. The average PM emission was 0.0129 gr/dscf, adjusted to 50% excess air, which complies with the PM standard.

The remaining processes (i.e., the veneer dryers, pressing line, composers, and the pneumatic wood waste transfer system with baghouse) would be subject to the State particulate emission rate limits based on process weight [ADEM Admin. Code r. 335-3-4-.04(1)].

In addition to the above limitations, ADEM Admin. Code r. 335-3-4-.01(1) sets forth a visible emissions standard which states that each stationary source at the facility shall not emit particulate of an opacity greater than twenty percent (20%) more than once during any 60-minute period, as determined by a six-minute average, and at no time shall emit particulate of an opacity greater than 40%, as determined by a six-minute average.

Sulfur Oxides (SO_x)

The wood waste boilers are subject to the sulfur oxides (as SO₂) emission limitations of ADEM Admin. Code r. 335-3-5-.01(b), which limits the boilers to 4.0 lb/MMBtu heat input.

Visible Emissions

The ESP stack, dryers, press, and baghouse exhaust are subject to the State visible emission standards of ADEM Admin. Code r. 335-3-4-.01(1), which states that each stationary source at the facility shall not emit particulate emissions of an opacity greater than twenty percent (20%), as determined by a six-minute average, more than once during any 60-minute period, and shall not at any time emit particulate of an opacity greater than forty percent (40%), as determined by a six-minute average.

Emission Testing and Monitoring

001 & 002 - 28.2 MMBtu/hr Hurst Wood Waste Boiler No. 1 (BB01) & 28.2 MMBtu/hr Hurst Wood Waste Boiler No. 2 (BB02) w/ common stack to a dry ESP (ESP1)

MMI is required to comply with emission testing requirements under the Boiler MACT, Subpart DDDDD, which includes initial and annual emission tests for particulate, unless the requirements listed in §63.7515(b) through (e), (g), and (h) are followed, which allow testing to be conducted every third year (no more than 37 months after the previous performance test) for pollutants at or below 75 percent of the emission limit. Since the boilers are controlled by a common ESP and emit through a common stack, compliance is determined from the common stack while the boilers are operating simultaneously.

MMI has requested to demonstrate compliance with ADEM Admin. Code r. 335-3-4-.01(1) by utilizing the Continuous Opacity Monitoring System (COMS) data instead of daily Method 9 observations. MMI would be required to certify the COMS in accordance with the requirements of 40 CFR 60, Appendix B, Performance Specification 1 (PS-1). The COMS shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period. The COMS shall undergo a daily check for calibration drift and quarterly and annual audits according to the procedures specified in PS-1. When an excursion occurs, corrective action shall be initiated as soon as practicable but no longer than 24 hours from the time of the excursion, followed by an additional reading to confirm emissions are below the excursion level.

These boilers are also subject to the SIP SO₂ allowable emission rate of 4.0 lb/MMBtu of heat input. Wood waste is the primary fuel source for this boiler. Due to the minimal expected SO₂ emissions from the combustion of wood waste, no emission testing or monitoring for SO₂ is considered necessary.

003 & 004 – Hardwood Veneer Dryer Nos. 1 (DR01) & 2 (DR02)

No emission testing or monitoring for compliance with the State particulate and visible emissions standards would be required for the veneer dryers due to the minimal particulate emissions that occur from an indirect-heated veneer dryer.

The PCWP MACT requires that an initial compliance demonstration be made that less than 30 volume percent softwood was processed in the dryers in the 12 months prior to the compliance date. However, in the application to construct the dryers, MMI certified that no softwood species would be processed in these dryers. To demonstrate continuous compliance with the work practice required under the PCWP MACT, MMI is required to keep records of the volume percent softwood species processed.

005 – Hardwood Pressing Line No. 1, which includes Veneer Lay-up and Gluing, Burkle Hardwood Panel Press No. 1 (PR01), and Cooling Section (C01)

No emission testing or monitoring for compliance with the State particulate and visible emissions standards would be required for the pressing line due to the minimal particulate emissions that occur from these emission sources. There are no applicable standards for these sources under the PCWP MACT.

006 – Hardwood Panel Trimming/Sanding and Core/Board Sawing Operation Wood Waste Transfer System w/ Baghouse (BG1)

Initial compliance testing would not be required for the baghouse (BG1) to determine compliance with the State particulate standard. Based on the manufacturer's guaranteed control efficiency of 99.92%, the application indicates that the expected particulate emission rate (4.0 lb/hr) is approximately 63% of the State allowable rate.

Emission monitoring for the baghouse for compliance with the particulate and visible emission limits would include:

- Daily observations for the presence of any visible emissions;
- A requirement that whenever visible emissions are observed, corrective action must be initiated within 24 hours, followed by an additional observation to confirm that the visible emissions are eliminated; and
- The baghouse shall be inspected for proper operation at least annually, but more frequently whenever visible emissions are observed. If the results of the inspection indicate that cleaning or maintenance is needed, such action shall be initiated within 24 hours of completing the inspection.

Recordkeeping and Reporting Requirements

001 & 002 - 28.2 MMBtu/hr Industrial Wood Waste Boiler No. 1 (BB01) & 28.2 MMBtu/hr Hurst Wood Waste Boiler No. 2 (BB02) w/ common stack to a dry ESP (ESP1)

To comply with the Boiler MACT, the facility would be required to maintain records in accordance the applicable requirements listed in 40 CFR §63.7555 and §63.7560 and to submit reports in accordance the applicable requirements listed in 40 CFR §63.7550.

To demonstrate compliance with ADEM Admin. Code r. 335-3-4-.01(1), MMI would be required to submit quarterly reports for all COMS-indicated exceedances of this regulation instead of reporting each exceedance within 48 hours of occurrence. The reports would be required to include details regarding the duration, cause, and corrective actions taken for each exceedance of visible emission standard outlined in ADEM Admin. Code r. 335-3-4-.01(a)-(b). All exceedances of visible emission standards documented by Reference Method 9, COMS-indicated exceedances that last longer than 30 minutes, and 6-minute average opacity readings greater than 40% would continue to be reported within 48 hours.

003 & 004 – Hardwood Veneer Dryer Nos. 1 (DR01) & 2 (DR02)

To demonstrate continuous compliance with the work practice required under the PCWP MACT, MMI is required to keep records of the volume percent softwood species processed.

005 – Hardwood Pressing Line No. 1, which includes Veneer Lay-up and Gluing, Burkle Hardwood Panel Press No. 1 (PR01), and Cooling Section (C01) & 006 & 007 - Two Composers (CMP1 & CMP2)

There are no recordkeeping or reporting requirements specific to these emission units.

006 – Hardwood Panel Trimming/Sanding and Core/Board Sawing Operation Wood Waste Transfer System w/ Baghouse (BG1)

MMI would be required to maintain records of the required emission monitoring for this emission unit on-site in a permanent form suitable for inspection and readily available for inspection for at least five (5) years from the date of generation of each record. These records would include (as applicable):

- The date, time, and results of each emission observation;
- The date(s), time(s), nature, and results of any corrective action taken when visible emissions were observed; and
- The date(s) the control device was inspected for proper operation and, if the results of the inspection indicated that cleaning or emission-related maintenance was needed, the date(s) and nature of the cleaning/maintenance performed.

Facility-wide Reporting Requirements

The facility would be required to include the following information (as applicable) in the Semiannual Monitoring Report required by General Permit Proviso No. 21:

- A statement describing the emission monitoring that was required during the period, whether all emission observations were completed as required, and if not, the date(s) and reasons(s) why the monitoring was not performed;
- A statement as to whether the annual inspection(s) of the control device(s) or annual calibration of the COMS was accomplished during the reporting period, and if so, the date and results of the inspection(s) or calibration; and

- The date(s), nature, and results of any corrective action taken when (1) a deviation from an emission monitoring parameter was observed or (2) an inspection of the control device indicated that cleaning or emission-related maintenance was needed.

Semi-annual reporting will be on a calendar year basis (January1 – June 30 and July 1 – December 31).

Compliance Assurance Monitoring (CAM)

40 CFR Part 64, Compliance Assurance Monitoring, applies to processes that utilize an active control device to meet an emission limitation. The pre-control and post-control emissions of CO from the two wood-fired boilers are greater than the applicable major source threshold. However, the monitoring requirements under Boiler MACT contain “presumptively acceptable monitoring” to satisfy the requirements in Part 64. The monitoring requirements provide a reasonable assurance that emissions of interests would meet the required limitations. The facility does not have any other control devices subject to CAM requirements.

Recommendation

Based on the above analysis, I recommend that Mannington Mills, Inc. dba Mannington Wood Floors be issued a Major Source Operating Permit (412-0011) pending a 30-day public notice period and a 45-day EPA review.

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DRAFT
Date